GOVERNMENT OF INDIA
ATOMIC ENERGY
LOK SABHA

UNSTARRED QUESTION NO:3492
ANSWERED ON:07.12.2016
Advanced Heavy Water Reactor Technology
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Will the Minister of ATOMIC ENERGY be pleased to state:

(a)whether the Government has started its research on the advanced heavy water reactor technology;

(b)if so, the details of the projects thereof; and

(c)the benefits of using the advanced heavy water reactor technology?

Answer

THE MINISTER OF STATE FOR PERSONNEL, PUBLIC GRIEVANCES & PENSIONS AND PRIME MINISTER'S OFFICE (Dr. JITENDRA SINGH):

(a)&(b)Bhabha Atomic Research Centre (BARC), a constituent unit of Department of Atomic Energy is working on the research and development of the Advanced Heavy Water Reactor (AHWR). It is a thorium fuel based vertical pressure tube type, heavy water moderated and boiling light water cooled reactor. The 300 MWe capacity AHWR designed by BARC is intended to serve as a technology demonstrator for a range of technologies for Thorium utilisation as well as for several advanced safety features that have been incorporated. With this objective, several innovative features of the design are currently being validated through large scale engineering experiments. The current status is that design of all important nuclear systems of AHWR has been completed and various associated confirmatory R&D studies, detailed engineering of AHWR, various works related to obtaining the necessary site selection approvals and associated statutory/regulatory clearances are taken up.

(c)AHWR being a technology demonstration reactor will provide impetus for development of technologies for the third stage of India's Nuclear Power Programme. It will provide experience on use of Thorium fuel on a large and industrial scale. In addition, the research programme which is underway for development of advanced safety systems will also provide benefits for post Fukushima related improvements for other operating / under-construction reactors.

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